

BEST AVAILABLE COPY

PATENT COOPERATION TREATY

PCT

NOTIFICATION OF ELECTION

(PCT Rule 61.2)

From the INTERNATIONAL BUREAU

To:

Commissioner
 US Department of Commerce
 United States Patent and Trademark
 Office, PCT
 2011 South Clark Place Room
 CP2/5C24
 Arlington, VA 22202
 ETATS-UNIS D'AMERIQUE
 in its capacity as elected Office

Date of mailing (day/month/year) 19 June 2001 (19.06.01)	Applicant's or agent's file reference RSJ07045WO
International application No. PCT/GB00/03080	Priority date (day/month/year) 14 September 1999 (14.09.99)
International filing date (day/month/year) 10 August 2000 (10.08.00)	
Applicant ALLAWAY, Andrew, Wayne et al	

1. The designated Office is hereby notified of its election made:



in the demand filed with the International Preliminary Examining Authority on:

05 April 2001 (05.04.01)



in a notice effecting later election filed with the International Bureau on:

2. The election ☒ was

was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland	Authorized officer Anman QIU
Facsimile No.: (41-22) 740.14.35	Telephone No.: (41-22) 338.83.38

PATENT COOPERATION TREATY

PCT

NOTIFICATION OF THE RECORDING
OF A CHANGE(PCT Rule 92bis.1 and
Administrative Instructions, Section 422)

From the INTERNATIONAL BUREAU

To:

LIDBETTER, Timothy, Guy, Edwin
BT Group Legal Services
Intellectual Property Dept.
8th floor
Holborn Centre, 120 Holborn
London EC1N 2TE
ROYAUME-UNI

Date of mailing (day/month/year) 14 juin 2001 (14.06.01)	IMPORTANT NOTIFICATION
Applicant's or agent's file reference A25823 WO	
International application No. PCT/GB00/03080	International filing date (day/month/year) 10 août 2000 (10.08.00)

1. The following indications appeared on record concerning:									
<input checked="" type="checkbox"/> the applicant	<input type="checkbox"/> the inventor <input type="checkbox"/> the agent <input type="checkbox"/> the common representative								
Name and Address BRITISH TELECOMMUNICATIONS PUBLIC LIMITED COMPANY 81 Newgate Street London EC1A 7AJ United Kingdom	<table border="1"> <tr> <td>State of Nationality GB</td> <td>State of Residence GB</td> </tr> <tr> <td colspan="2">Telephone No.</td> </tr> <tr> <td colspan="2">Facsimile No.</td> </tr> <tr> <td colspan="2">Teleprinter No.</td> </tr> </table>	State of Nationality GB	State of Residence GB	Telephone No.		Facsimile No.		Teleprinter No.	
State of Nationality GB	State of Residence GB								
Telephone No.									
Facsimile No.									
Teleprinter No.									
2. The International Bureau hereby notifies the applicant that the following change has been recorded concerning:									
<input type="checkbox"/> the person	<input checked="" type="checkbox"/> the name <input checked="" type="checkbox"/> the address <input type="checkbox"/> the nationality <input type="checkbox"/> the residence								
Name and Address STRATOS GLOBAL LIMITED 6th Floor, Finsbury Square London EC2A 1AE United Kingdom	<table border="1"> <tr> <td>State of Nationality GB</td> <td>State of Residence GB</td> </tr> <tr> <td colspan="2">Telephone No. 020 7843 5378</td> </tr> <tr> <td colspan="2">Facsimile No. 020 7843 8940</td> </tr> <tr> <td colspan="2">Teleprinter No.</td> </tr> </table>	State of Nationality GB	State of Residence GB	Telephone No. 020 7843 5378		Facsimile No. 020 7843 8940		Teleprinter No.	
State of Nationality GB	State of Residence GB								
Telephone No. 020 7843 5378									
Facsimile No. 020 7843 8940									
Teleprinter No.									
3. Further observations, if necessary:									
4. A copy of this notification has been sent to:									
<input checked="" type="checkbox"/> the receiving Office	<input checked="" type="checkbox"/> the designated Offices concerned								
<input type="checkbox"/> the International Searching Authority	<input type="checkbox"/> the elected Offices concerned								
<input type="checkbox"/> the International Preliminary Examining Authority	<input type="checkbox"/> other:								

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland	Authorized officer Anman QIU
Facsimile No.: (41-22) 740.14.35	Telephone No.: (41-22) 338.83.38

PATENT COOPERATION TREATY

PCT

NOTIFICATION OF THE RECORDING
OF A CHANGE(PCT Rule 92bis.1 and
Administrative Instructions, Section 422)

From the INTERNATIONAL BUREAU

To:

SKONE JAMES, Robert, E.
Gill Jennings & Every
Broadgate House
7 Eldon Street
London EC2 7LH
ROYAUME-UNI

Date of mailing (day/month/year) 19 June 2001 (19.06.01)	IMPORTANT NOTIFICATION
Applicant's or agent's file reference RSJ07045WO	
International application No. PCT/GB00/03080	International filing date (day/month/year) 10 August 2000 (10.08.00)

1. The following indications appeared on record concerning:

☐ the applicant ☐ the inventor ☒ the agent ☐ the common representative

Name and Address

HUANG, Stuart, T. F.
Steptoe & Johnson LLP
1330 Connecticut Avenue, N.W.
Washington, D.C. 20036-1795
United States of America

State of Nationality

State of Residence

Telephone No.

Facsimile No.

Teleprinter No.

2. The International Bureau hereby notifies the applicant that the following change has been recorded concerning:

☒ the person ☐ the name ☐ the address ☐ the nationality ☐ the residence

Name and Address

SKONE JAMES, Robert, E.
Gill Jennings & Every
Broadgate House
7 Eldon Street
London EC2M 7LH
United Kingdom

State of Nationality

State of Residence

Telephone No.

Facsimile No.

Teleprinter No.

3. Further observations, if necessary:

4. A copy of this notification has been sent to:

<input checked="" type="checkbox"/> the receiving Office	<input type="checkbox"/> the designated Offices concerned
<input type="checkbox"/> the International Searching Authority	<input checked="" type="checkbox"/> the elected Offices concerned
<input checked="" type="checkbox"/> the International Preliminary Examining Authority	<input type="checkbox"/> other:

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No.: (41-22) 740.14.35	Authorized officer Anman QIU Telephone No.: (41-22) 338.83.38
------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------

PATENT COOPERATION TREATY

PCT

NOTIFICATION OF THE RECORDING
OF A CHANGE(PCT Rule 92bis.1 and
Administrative Instructions, Section 422)

From the INTERNATIONAL BUREAU

To:

SKONE JAMES, Robert, E.
Gill Jennings & Every
Broadgate House
7 Eldon Street
London EC2 7LH
ROYAUME-UNI

Date of mailing (day/month/year) 19 June 2001 (19.06.01)	IMPORTANT NOTIFICATION
Applicant's or agent's file reference RSJ07045WO	
International application No. PCT/GB00/03080	International filing date (day/month/year) 10 August 2000 (10.08.00)

1. The following indications appeared on record concerning:

☐ the applicant ☐ the inventor ☒ the agent ☐ the common representative

Name and Address HUANG, Stuart, T. F. Steptoe & Johnson LLP 1330 Connecticut Avenue, N.W. Washington, D.C. 20036-1795 United States of America	State of Nationality	State of Residence
	Telephone No.	
	Facsimile No.	
	Teleprinter No.	

2. The International Bureau hereby notifies the applicant that the following change has been recorded concerning:

☒ the person ☐ the name ☐ the address ☐ the nationality ☐ the residence

Name and Address SKONE JAMES, Robert, E. Gill Jennings & Every Broadgate House 7 Eldon Street London EC2M 7LH United Kingdom	State of Nationality	State of Residence
	Telephone No.	
	Facsimile No.	
	Teleprinter No.	

3. Further observations, if necessary:

4. A copy of this notification has been sent to:

<input checked="" type="checkbox"/> the receiving Office	<input type="checkbox"/> the designated Offices concerned
<input type="checkbox"/> the International Searching Authority	<input checked="" type="checkbox"/> the elected Offices concerned
<input checked="" type="checkbox"/> the International Preliminary Examining Authority	<input type="checkbox"/> other:

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No.: (41-22) 740.14.35	Authorized officer Anman QIU Telephone No.: (41-22) 338.83.38
-----------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------

P. ENT COOPERATION TREA

PCT

NOTIFICATION OF THE RECORDING
OF A CHANGE(PCT Rule 92bis.1 and
Administrative Instructions, Section 422)

From the INTERNATIONAL BUREAU

To:

HUANG, Stuart, T. F.
Steptoe & Johnson LLP
1330 Connecticut Avenue, N.W.
Washington, D.C. 20036-1795
ETATS-UNIS D'AMERIQUE

Date of mailing (day/month/year) 19 June 2001 (19.06.01)	IMPORTANT NOTIFICATION
Applicant's or agent's file reference 11696.0052	
International application No. PCT/GB00/03080	International filing date (day/month/year) 10 August 2000 (10.08.00)

1. The following indications appeared on record concerning:

☐ the applicant ☐ the inventor ☒ the agent ☐ the common representative

Name and Address LIDBETTER, Timothy, Guy, Edwin BT Group Legal Services Intellectual Property Dept. 8th Floor Holborn Centre, 120 Holborn London EC1N 2TE United Kingdom	State of Nationality	State of Residence
	Telephone No.	
	Facsimile No.	
	Teleprinter No.	

2. The International Bureau hereby notifies the applicant that the following change has been recorded concerning:

☒ the person ☐ the name ☐ the address ☐ the nationality ☐ the residence

Name and Address HUANG, Stuart, T. F. Steptoe & Johnson LLP 1330 Connecticut Avenue, N.W. Washington, D.C. 20036-1795 United States of America	State of Nationality	State of Residence
	Telephone No.	
	Facsimile No.	
	Teleprinter No.	

3. Further observations, if necessary:

4. A copy of this notification has been sent to:

<input checked="" type="checkbox"/> the receiving Office	<input type="checkbox"/> the designated Offices concerned
<input type="checkbox"/> the International Searching Authority	<input checked="" type="checkbox"/> the elected Offices concerned
<input checked="" type="checkbox"/> the International Preliminary Examining Authority	<input type="checkbox"/> other:

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No.: (41-22) 740.14.35	Authorized officer Anman QIU Telephone No.: (41-22) 338.83.38
-----------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------

PCT INTERNATIONAL COOPERATION TREATY

PCT

NOTIFICATION OF THE RECORDING
OF A CHANGE(PCT Rule 92bis.1 and
Administrative Instructions, Section 422)

From the INTERNATIONAL BUREAU

To:

HUANG, Stuart, T. F.
Steptoe & Johnson LLP
1330 Connecticut Avenue, N.W.
Washington, D.C. 20036-1795
ETATS-UNIS D'AMERIQUE

Date of mailing (day/month/year) 19 June 2001 (19.06.01)	IMPORTANT NOTIFICATION
Applicant's or agent's file reference 11696.0052	
International application No. PCT/GB00/03080	International filing date (day/month/year) 10 August 2000 (10.08.00)

1. The following indications appeared on record concerning:

☐ the applicant ☐ the inventor ☒ the agent ☐ the common representative

Name and Address LIDBETTER, Timothy, Guy, Edwin BT Group Legal Services Intellectual Property Dept. 8th Floor Holborn Centre, 120 Holborn London EC1N 2TE United Kingdom	State of Nationality	State of Residence
	Telephone No.	
	Facsimile No.	
	Teleprinter No.	

2. The International Bureau hereby notifies the applicant that the following change has been recorded concerning:

☒ the person ☐ the name ☐ the address ☐ the nationality ☐ the residence

Name and Address HUANG, Stuart, T. F. Steptoe & Johnson LLP 1330 Connecticut Avenue, N.W. Washington, D.C. 20036-1795 United States of America	State of Nationality	State of Residence
	Telephone No.	
	Facsimile No.	
	Teleprinter No.	

3. Further observations, if necessary:

4. A copy of this notification has been sent to:

<input checked="" type="checkbox"/> the receiving Office	<input type="checkbox"/> the designated Offices concerned
<input type="checkbox"/> the International Searching Authority	<input checked="" type="checkbox"/> the elected Offices concerned
<input checked="" type="checkbox"/> the International Preliminary Examining Authority	<input type="checkbox"/> other:

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No.: (41-22) 740.14.35	Authorized officer Anman QIU Telephone No.: (41-22) 338.83.38
------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------

REC'D 15 JAN 2002

WIPO

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference RSJ07045WO	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/GB00/03080	International filing date (day/month/year) 10/08/2000	Priority date (day/month/year) 14/09/1999
International Patent Classification (IPC) or national classification and IPC H04B7/185		
Applicant STRATOS GLOBAL LIMITED et al.		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.



2. This REPORT consists of a total of 9 sheets, including this cover sheet.

- ☐ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☒ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☒ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☒ Certain defects in the international application
- VIII ☒ Certain observations on the international application

Date of submission of the demand 05/04/2001	Date of completion of this report 11.01.2002
Name and mailing address of the international preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized officer Koch, B Telephone No. +49 89 2399 7303 

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/GB00/03080

I. Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

Description, pages:

1-24 as originally filed

Claims, No.:

1-30 as originally filed

Drawings, sheets:

1/10-10/10 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
- ☐ the claims, Nos.:

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/GB00/03080

☐ the drawings, sheets:

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)):

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

III. Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

1. The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non-obvious), or to be industrially applicable have not been examined in respect of:

☐ the entire international application.

☒ claims Nos. 5-15, 20-30.

because:

☐ the said international application, or the said claims Nos. relate to the following subject matter which does not require an international preliminary examination (*specify*):

☐ the description, claims or drawings (*indicate particular elements below*) or said claims Nos. are so unclear that no meaningful opinion could be formed (*specify*):

☐ the claims, or said claims Nos. are so inadequately supported by the description that no meaningful opinion could be formed.

☐ no international search report has been established for the said claims Nos. .

2. A meaningful international preliminary examination cannot be carried out due to the failure of the nucleotide and/or amino acid sequence listing to comply with the standard provided for in Annex C of the Administrative Instructions:

☐ the written form has not been furnished or does not comply with the standard.

☐ the computer readable form has not been furnished or does not comply with the standard.

IV. Lack of unity of invention

1. In response to the invitation to restrict or pay additional fees the applicant has:

☐ restricted the claims.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/GB00/03080

- ☐ paid additional fees.
- ☐ paid additional fees under protest.
- ☒ neither restricted nor paid additional fees.

2. ☐ This Authority found that the requirement of unity of invention is not complied and chose, according to Rule 68.1, not to invite the applicant to restrict or pay additional fees.

3. This Authority considers that the requirement of unity of invention in accordance with Rules 13.1, 13.2 and 13.3 is

- ☐ complied with.
- ☒ not complied with for the following reasons:
see separate sheet

4. Consequently, the following parts of the international application were the subject of international preliminary examination in establishing this report:

- ☐ all parts.
- ☒ the parts relating to claims Nos. 1-4, 16-19.

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes:	Claims	1-4, 16-19
	No:	Claims	
Inventive step (IS)	Yes:	Claims	1-4, 16-19
	No:	Claims	
Industrial applicability (IA)	Yes:	Claims	1-4, 16-19
	No:	Claims	

2. Citations and explanations
see separate sheet

VII. Certain defects in the international application

The following defects in the form or contents of the international application have been noted:
see separate sheet

VIII. Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. PCT/GB00/03080

see separate sheet

Re Item III

Non-establishment of opinion with regard to novelty, inventive step and industrial applicability and

Re Item IV

Lack of unity of invention

1. Reference is made to the following document:
D1: EP-A-0920147
2. The application comprises three separate groups of inventions, which are as follows:
 - i) Claims 1-4 and 16-19:
An apparatus/method for initiating call diversion instructions.
 - ii) Claims 5-11 and 20-24:
A network interface unit and method for interconnecting two telecommunications systems.
 - iii) Claims 12-15 and 25-30:
A first telecommunications system, arranged for interconnection with a second telecommunications system and corresponding method.
3. These groups of inventions have the following features in common:
 - a) Interconnection between a first telecommunications system and a second telecommunications system.
 - b) Calls initially directed to a telephone apparatus *usable* with the second telecommunications system are diverted to a selected terminal point in the first telecommunications system.
4. The features a) and b) are not novel, see e.g. document D1.
This document discloses
 - a) Interconnection between a first telecommunications system (*cf. 2-7 in fig. 1*), and a second telecommunications system (*cf. "PSTN" 10 and 15 in fig. 1*).
 - b) calls initially directed to a telephone apparatus *usable* with the second telecommunications system (*cf. 12, 13 in fig. 1 and col. 2, lines 53-55*) are diverted (*cf. col. 3, lines 14-15*) to a selected terminal point (*cf. 5 and 6 in fig.*

1) in the first telecommunications system.

Thus the abovementioned groups of inventions I) and ii) have no common "special technical features" within the meaning of Rule 13.2 PCT, and therefore these groups of inventions are not linked as to form a "single general inventive concept" as required by Rule 13.1 PCT.

5. Invention (I) has been considered to be the main invention mentioned on the cover sheet .
6. Since the applicant did neither pay additional fees nor restrict the claims, only the main invention (**claims 1-4 and 16-19**) as defined above was subject of the examination as set forth in the following items V, VII and VIII, in accordance with Article 34(3)(c) PCT.

Re Item V

Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Technical Field

The invention relates to a method (claim 16) and an apparatus (claim 1) for mobile telephony on board of vehicles.

2. Prior Art:

D1 (EP-A-0920147) is the closest prior art and discloses:

Means for interconnection between a first telecommunications system (*cf. 2-7 in fig. 1*), and a second telecommunications system (*cf. "PSTN" 10 and 15 in fig. 1*), wherein calls initially directed to a telephone apparatus *usable* with the second telecommunications system (*cf. 12, 13 in fig. 1 and col. 2, lines 53-55*) are diverted (*cf. col. 3, lines 14-15*) to a selected terminal point (*cf. 5 and 6 in fig. 1*) in the first telecommunications system, and an interface means (*cf. 20 in fig. 1*) between the first telecommunications system and the second telecommunications system.

3. Problem:

The Invention solves the problem of diverting a incoming call from a second telecommunications system to a mobile handset working in a first telecommunications system, wherein the current operation status of the handset is unknown in the second telecommunications system.

4. Solution:

The invention solves this problem by the following feature, which is not known from D1:

Means to indicate to the switching system of the second telecommunications system that the telephone apparatus is in a specified operating condition, irrespective of the true operating condition of the telephone apparatus.

There is no hint in D1, that would lead the skilled person in an obvious way to neglect the operating condition of the telephone apparatus and to send a "virtual" operating condition to the second telecommunications system. Claim 1 is therefore novel and inventive (Articles 33(2) and 33(3) PCT).

Re Item VII

Certain defects in the international application

1. The independent claims are not in the two-part form in accordance with Rule 6.3(b) PCT, which in the present case would be appropriate, with those features known in combination from the prior art (document D1) being placed in the preamble (Rule 6.3(b)(i) PCT) and with the remaining features being included in the characterising part (Rule 6.3(b)(ii) PCT).
2. The features of the claims are not provided with reference signs placed in parentheses (Rule 6.2(b) PCT).
3. Contrary to the requirements of Rule 5.1(a)(ii) PCT, the relevant background art disclosed in the document D1 is not mentioned in the description, nor is this document identified therein.

Re Item VIII

Certain observations on the international application

1. The present wording (e.g. "...for enabling" or "...for identifying") of **claim 1** seems to define the operation of the system by a method of using the system rather than clearly defining the apparatus in terms of its structural features. Hence these features can merely be read as "...suitable for enabling/identifying" etc., according to the Guidelines, C-III, 4.8. The intended limitations are therefore not clear from these claim, contrary to the requirements of Article 6 PCT. It seems that this could have been overcome by redrafting these claims using the formulation "...arranged to/for...".
2. It is not clear to which "switching system" is referred to in lines 11, 13 and 16 of **claim 1**. Should the "switching system of a second telecommunications system" be meant, a clear reference to the latter is lacking, thereby rendering claim 1 unclear (Article 6 PCT).

The same objection concerns **claim 16**, respectively.



(84) **Designated States (regional):** ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

Published:

— *With international search report.*

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

**This Page is Inserted by IFW Indexing and Scanning
Operations and is not part of the Official Record**

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

- ☐ **BLACK BORDERS**
- ☒ **IMAGE CUT OFF AT TOP, BOTTOM OR SIDES**
- ☐ **FADED TEXT OR DRAWING**
- ☐ **BLURRED OR ILLEGIBLE TEXT OR DRAWING**
- ☐ **SKEWED/SLANTED IMAGES**
- ☐ **COLOR OR BLACK AND WHITE PHOTOGRAPHS**
- ☐ **GRAY SCALE DOCUMENTS**
- ☐ **LINE(S) OR MARK(S) ON ORIGINAL DOCUMENT**
- ☐ **REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY**
- ☐ **OTHER: _____**

IMAGES ARE BEST AVAILABLE COPY.

As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.